

Application No.: 10/629,850

Docket No.: 30017003-2 US (1509-408)

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method of selecting ~~a printer~~ one of a plurality of printers on a network to receive a file to be printed on the instigation of a mobile device that can be held in one hand, the network including the plurality of printers and an access point for enabling messages from the mobile device to be relayed to the plurality of printers via the network, the method comprising:

wirelessly sending at least one user preference from the mobile device to the access point, thence to a networked print controller, the print controller having responding to the sent preference by access to accessing predetermined properties of a the plurality of networked printers,

matching, at the networked print controller, at least one of the predetermined properties of the plurality of networked printers with the sent at least one user preference, and

at the networked print controller selecting the printer that is to print the file in accordance with the results of matching at least one of the predetermined properties of the plurality of networked printers with the at least one user preference.

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2. (Currently amended) The method of claim 1, wherein the user preference comprises a current location of the mobile device and the method further comprises: determining a location of the mobile device relative to ~~at least one wireless communication~~ the access point of the network by measuring a transmitted wireless signal strength as transmitted from of the at least one wireless communication point at the current location of the mobile device and received at the access point;

wherein sending at least one user preference from the mobile device to ~~a~~ the networked print controller comprises transmitting the measured signal strength to the print controller via the network;

wherein matching at least one of the predetermined properties of the plurality of networked printers with the at least one user preference comprises ~~comparing the combining indications of the measured wireless signal strength at the mobile device with a plurality of stored wireless signal strengths of the at least one communications between the access point at and each of the printer locations and comparing the combined indications;~~ and

wherein selecting the printer that is to print the file comprises selecting a printer to send the file to having the best match resulting from the comparing step ~~the measured wireless signal strength at the mobile device with a plurality of stored wireless signal strengths of the at least one communications point at each of the printer locations.~~

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3. (Original) The method according to claim 1, further comprising selecting at least one print requirement for the file, and communicating the print requirement to the print controller, wherein matching at least one of the predetermined properties of the plurality of networked printers with the at least one user preference comprises comparing the at least one print requirement with the predetermined abilities of each of the networked printers and the selecting step comprises excluding all printers that do not have the desired at least one print requirement.

4. (Original) The method according to claim 2, further comprising selecting at least one print requirement for the file, and communicating the print requirement to the print controller, wherein matching at least one of the predetermined properties of the plurality of networked printers with the at least one user preference comprises comparing the at least one print requirement with the predetermined abilities of each of the networked printers and the selecting step comprises excluding all printers that do not have the desired at least one print requirement.

5. (Original) The method according to claim 1, wherein the predetermined abilities of the printers are stored in the print controller and the method further comprises retrieving the stored predetermined abilities.

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6. (Original) The method according to claim 1, wherein the predetermined abilities of the printers are stored remotely from the print controller and the method further comprises retrieving the stored predetermined abilities from the remote store.
7. (Original) The method according to claim 2, wherein the predetermined abilities of the printers are stored remotely from the print controller and the method further comprises retrieving the stored predetermined abilities from the remote store.
8. (Original) The method according to claim 3, wherein the predetermined abilities of the printers are stored remotely from the print controller and the method further comprises retrieving the stored predetermined abilities from the remote store.
9. (Original) The method according to claim 1, wherein matching at least one of the predetermined properties of the plurality of networked printers with the at least one user preference comprises comparing at least one of the current number and size and print jobs in each of the printers' memories and selecting the printer that is to print the file comprises selecting the printer with the lowest number and/or size of print jobs.
10. (Currently amended) The method according to claim 2, wherein selecting the printer that is to print the file comprises selecting the printer having its strongest signal strength from the same ~~wireless communication~~ access point as that of the strongest signal strength of the mobile device.

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11. (Currently amended) The method according to claim 2, wherein the network comprises a plurality of ~~wireless communication access~~ access points and the strongest signal strengths of the printer and the mobile device are equal, and selecting the printer that is to print the file further comprising selecting the printer having its second strongest signal strength from the same ~~wireless communication access~~ access point as that of the second strongest signal strength of the mobile device.

12. (Currently amended) In the method according to a claim 2, wherein the network comprises a plurality of ~~wireless communication access~~ access points and selecting the printer that is to print the file comprises selecting the printer having the largest number of non-zero signal strengths of the ~~wireless communication access~~ access points in common with the measured signal strengths at the mobile device.

13. (Original) The method according to a claim 2, further comprising displaying to the user a list of details of a plurality of best-matched printers suitable for unique selection and selecting the printer that is to print the file further comprising the user manually selecting one of the printers on the list.

14. (Original) The method according to claim 13, wherein displaying to the user a list of details of a plurality of best-matched printers suitable for unique selection comprises displaying the actual location of each of the plurality of best-matched printers.

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15. (Original) The method according to claim 2, further comprising sending to the mobile device a map of directions to the selected printer, a set of audio or written directions to the selected printer or a selected printer location name.

16. (Currently amended) A method of printing a file to a networked-selected printer of a network including a plurality of printers, the printing being performed at the instigation of a mobile device that can be held in one hand, the method comprising:

selecting a networked printer comprising:

wirelessly sending at least one user preference from the mobile device to the access point, thence to a networked print controller, the print controller having access to responding to the sent preference by accessing predetermined properties of a the plurality of networked printers,

matching, at the networked print controller, at least one of the predetermined properties of the plurality of networked printers with the sent at least one user preference, and

at the networked print controller, selecting the printer that is to print the file in accordance with the results of matching at least one of the predetermined properties of the plurality of networked printers with the at least one user preference; and transmitting the file to the selected printer for printing.

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17. (Currently amended) The method according to claim 16, wherein the file is stored on the mobile device, and is transmitted to the print controller via a ~~wireless communication~~ the access point and subsequently forwarded from the access point onto the selected printer for print out.

18. (Original) The method according to claim 16, wherein the file is stored on a networked file server, and is selected by the mobile device and subsequently sent to the selected printer for print out by the print controller.

19. (Currently amended) The method according to claim 16, further comprising accessing the relevant printer driver for the selected printer from a plurality of printer drivers stored at the print controller ~~or a networked location accessible by the print controller~~.

20.-21. (Canceled)

22. (Currently amended) An apparatus adapted to ~~select a network printer for selecting one of plural printers of a network including a plurality of printers, the selected printer being arranged to receive a file to be printed on the instigation of a mobile device, the network having at least one communications~~ an access point for providing access to devices on the network in response to a wireless message from the mobile device, the

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wireless message including the file to be printed and a preference for printer capability for the file to be printed, the apparatus comprising:

a print controller connected ~~to~~ via the network to the plurality of printers of the network and having access to predetermined properties of ~~a~~ the plurality of networked printers of the network; the print controller being arranged to receive at least one user preference from the mobile device via the ~~communications point; access point, and~~ including a matching arrangement adapted to match at least one of the predetermined properties of the printers with the at least one user preference, and to select the printer that is to print the file in accordance with results of the match.

23. (Currently amended) A program storage medium or device, readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method of selecting ~~a printer one of a plurality of printers on a network~~ to receive a file to be printed on the instigation of a mobile device that can be held in one hand, the method comprising the method of claim 1:

~~sending at least one user preference from the mobile device to a networked print controller, the print controller having access to predetermined properties of a plurality of networked printers,~~

~~matching at least one of the predetermined properties of the plurality of networked printers with the at least one user preference, and~~

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~~selecting the printer that is to print the file in accordance with the results of matching at least one of the predetermined properties of the plurality of networked printers with the at least one user preference.~~

24. (Currently amended) The program medium or storage device of claim 23, wherein the user preference comprises a current location of the mobile device and the method further comprises:

determining a location of the mobile device relative to the access at least one wireless communication point of the network by measuring a transmitted wireless signal strength as transmitted from of the at least one wireless communication point at the current location of the mobile device and received at the access point;

wherein sending at least one user preference from the mobile device to ~~a the~~ networked print controller comprises transmitting the measured signal strength to the print controller via the network;

wherein matching at least one of the predetermined properties of the plurality of networked printers with the at least one user preference comprises ~~comparing the~~ combining indications of the measured wireless signal strength at the mobile device with a plurality of stored wireless signal strengths of the at least one communications between the access point at and each of the printer locations and comparing the combined indications; and

wherein selecting the printer that is to print the file comprises selecting a printer to send the file to having the best match resulting from the comparing stepsthe

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~~measured wireless signal strength at the mobile device with a plurality of stored wireless signal strengths of the at least one communications point at each of the printer locations.~~

25. (Currently amended) A program medium or storage device, readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method of printing a file to a networked selected printer of a network including a plurality of printers, the printing being performed at the instigation of a mobile device that can be held in one hand, the method comprising:

selecting a networked printer comprising the method of claim 16;

~~_____ sending at least one user preference from the mobile device to a networked print controller, the print controller having access to predetermined properties of a plurality of networked printers,~~

~~_____ matching at least one of the predetermined properties of the plurality of networked printers with the at least one user preference, and selecting the printer that is to print the file in accordance with the results of matching at least one of the predetermined properties of the plurality of networked printers with the at least one user preference; and~~

~~_____ transmitting the file to the selected printer for printing.~~

26. (Currently amended) The program medium or storage device of claim 25, wherein the file is stored on the mobile device, is transmitted to the print controller via a the

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wireless ~~communication access~~ point and subsequently forwarded onto the selected printer for print out.

27. (Currently amended) The program medium or storage device of claim 25, wherein the file is stored on a networked file server, is selected by the mobile device and subsequently sent to the selected printer for print out by the print controller.

28. (Currently amended) The program medium or storage device of claim 25, further comprising accessing the relevant printer driver for the selected printer from a plurality of printer drivers stored at the print controller ~~or a networked location accessible by the print controller.~~

29. (New) The method of claim 1 wherein the network includes plural access points that are wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of access points via the network, the method further comprising:

measuring the strength of the signals as received at the plurality of access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strains for transmission of signals between the access points and the plural printers to

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derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

30. (New) The method of claim 16 wherein the network includes plural access points that are wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of the access points via the network, the method further comprising:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

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31. (New) The apparatus of claim 22 wherein the network includes plural access points that are adapted to be wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with both the plurality of the access points via the network, the print controller being arranged for:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

32. (New) The program storage medium or device of claim 23 wherein the network includes plural access points that are adapted to be wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of the access points via the network, the method further comprising:

measuring the strength of the signals as received at a plurality of the access

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points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

33. (New) The program storage media or device of claim 25 wherein the network includes plural access points that are adapted to be wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of the access points via the network, the method further comprising:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of

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printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

34. (New) A method of selecting one of a plurality of printers in a network to receive a file to be printed on the instigation of a mobile device, the network including the plurality of the printers and plural access points that are wirelessly in range of the mobile device, the network being arranged so that the plurality of printers can communicate with the plurality of the access points via the network, the method further comprising:

measuring the strength of the signals as received at a plurality of the access points as transmitted from the mobile device,

combining (a) indications of the measured signal strengths with (b) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

selecting the printer on the basis of the indications of the total signal strengths.

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35. (New) The method of claim 34 in combination with the step of transmitting the file to the selected printer for printing.

36. (New) In combination, a mobile device adapted to have a file that a user of the mobile device desires to have printed, the mobile device including a wireless transmitter,

a network including a plurality of access points and a plurality of printers, the network being arranged so that (a) more than one of the access points is adapted to receive a wireless signal, including the file, from the mobile device, and (b) more than one of the printers is arranged to communicate with more than one of the access points via the network, the network further comprising a controller arrangement for:

(a) measuring the strengths of the signals as received at the more than one access points as transmitted from the mobile device,

(b) combining (i) indications of the measured signal strengths with (ii) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

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(c) selecting the printer on the basis of the indications of the total signal strengths.

37. (New) The combination of claim 37 wherein the controller is arranged for transmitting the file to the selected printer for printing.

38. (New) A controller for a network having a plurality of access points and a plurality of printers, more than one of the access points being adapted to receive wirelessly a signal including a file that a user of a wireless mobile device desires to have printed, the network being arranged so that more than one of the printers is arranged to communicate with more than one of the access points via the network, the controller being arranged for:

(a) measuring the strengths of the signals as received at the more than one access points as transmitted from the mobile device,

(b) combining (i) indications of the measured signal strengths with (ii) stored signal strengths for transmission of signals between the access points and the plural printers to derive indications of total signal strengths from the mobile device to the plurality of printers via all existing signal paths from the mobile device to the plurality of printers and including the plurality of access points, and

(c) selecting the printer on the basis of the indications of the total signal

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strengths.

39. (New) The controller of claim 38 wherein the controller is arranged to control transmission of the file to the selected printer for printing.